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THE TARHEEL WASHOFF

SOIL EROSION SERVICE
UNITED STATES DEPARTMENT OF THE INTERIOR
NORTH CAROLINA AREA

Circular No. 1

High Point, North Carolina
August 15, 1934

EROSION

Hordes of gullies now remind us
We should build our lands to stay,
And, departing, leave behind us
Fields that have not washed away;
When our boys assume the mortgage
On the land that's had our toil,
They'll not have to ask the question
"Here's the farm, but WHERE'S the SOIL!"

--Tennessee Valley Authority.

Subsoil farming now reminds us
We should keep our lands at home,
And, departing, leave behind us
Fields that aren't allowed to roam;
Then our boys will pay the mortgage
From unwashed tracts of fertile soil,
And have answer to the question
"I've a farm but WHERE'S the TOIL!"

Erosion a National Menace

SOIL EROSION is the greatest menace to our agriculture today. This dawns upon us the more forcibly when we travel around and see great areas of washed, rundown farms, dilapidated farm homes, treeless slopes, deep gullies, thickly mudded streams...and the yearly migrations of great numbers of farm folk, seeking the promise of better living conditions, less hard toil, and a happier outlook.

GREAT NUMBERS of our farmers are tilling subsoil, the topsoil of their farms being irretrievably washed away. What chance have they! None. They are defeated when they start. They do bankrupt farming...what chance have they to make firm and true Americans, good citizens and raise families of good citizens! Mighty slim.

SOIL EROSION CONTROL is truly of national portent. Our government recognizes that, and has set about determinedly to do what it can to start remedying the aggravated conditions of soil washing...to keep the cream of the land out of the streams. It could foster nothing more important to the people as a whole...it's a case of checking a force which is undermining the very foundations of our most essential national resource, help the farmer control the menace, and to assist him to establish an erosion-control and modified landuse program.

J. H. Stallings, director.

30 miles of terraces on 56 Deep River farms totaling 10,000 acres has been accomplished by farmer-government cooperation up to August 1.

Deep River Watershed Soils

FOLLOWING several weeks of detailed field study, definite classification of the soils of the Deep River erosion-control area was decided upon by W. D. Lee, soil expert, as follows:

Submarginal: Those soils found unsuited to tilled crops.

Supermarginal: Soil types of the area which are found especially adapted to the production of certain particular crops.

Intermediate: Soils which may be used for the production of crops common to the area but not particularly adapted to any particular crop.

The submarginal or non-tillable soils are grouped as "forest land". The supermarginal or tillable soils are separated into (1) tobacco or "grey land", and (2) grain and tame-forage or "red land". The intermediate or general purpose group comprises what is to be known as the "mixed land" types.

Mr. Lee's classification is based upon three controlling factors that mainly influence the procedure of the Soil Erosion Service in aiding the cooperator to arrest erosion. These 3 factors are: (1) the inherent characteristic of the soil type, (2) the extent of erosion, and (3) the topography or degree of slope.

The soil classification will be used by the agronomy and forestry specialists, and the farmer who cooperates, as a guide in working out an erosion and landuse program designed best suited to the individual farm.

Idle Young Men Given Erosion Training

A DEFINITE and outstanding phase of the Deep River project is the 10-week employment-training course being given 140 young men from various sections of North Carolina. High school graduates, college students and college graduates are getting a good, practical education in agriculture. At the same time each is earning \$180 for his contribution to the erosion work.

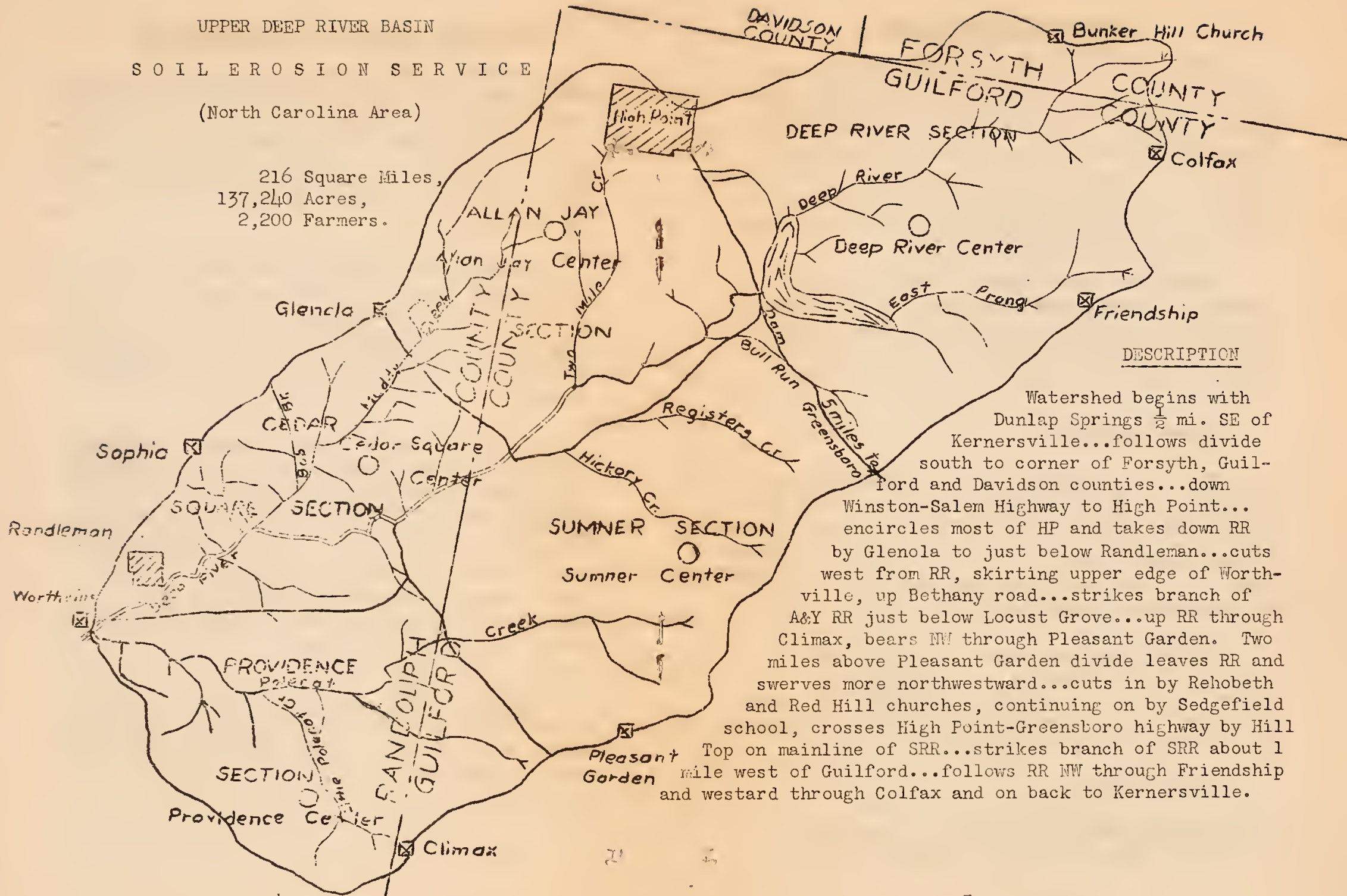
NEARLY EVERY COLLEGE in the state is represented in the Soil Erosion Training course. Its objects are (1) to give employment to young men in a worthwhile activity, (2) to train the youth in conserving, (and the need of conserving) the soil, and (3) to develop leaders to fit into the erosion-control program.

EVERY WORKING DAY except Saturday the young men are found in groups actually engaged in constructing erosion-preventing structures such as terraces and checkdams on various farms of the watershed. On Saturdays they are given lectures by members of the erosion staff on different phases of erosion control. This aspect of the erosion work is separate from the CCC camp personnel, also engaged in erosion-prevention work in the Deep River area.

WASHOFF from sloping land grown to lospedeza is from 1200 to 1500 percent less than from bare ground and from 500 to 1000 percent less than where a cultivated crop is grown.

UPPER DEEP RIVER BASIN
SOIL EROSION SERVICE
(North Carolina Area)

216 Square Miles,
137,240 Acres,
2,200 Farmers.



DESCRIPTION

Watershed begins with Dunlap Springs $\frac{1}{2}$ mi. SE of Kernersville...follows divide south to corner of Forsyth, Guilford and Davidson counties...down Winston-Salem Highway to High Point...encircles most of HP and takes down RR by Glenola to just below Randleman...cuts west from RR, skirting upper edge of Worthville, up Bethany road...strikes branch of A&Y RR just below Locust Grove...up RR through Climax, bears NW through Pleasant Garden. Two miles above Pleasant Garden divide leaves RR and swerves more northwestward...cuts in by Rehobeth and Red Hill churches, continuing on by Sedgefield school, crosses High Point-Greensboro highway by Hill Top on mainline of SRR...strikes branch of SRR about 1 mile west of Guilford...follows RR NW through Friendship and westard through Colfax and on back to Kernersville.

A Story of Polecat Creek

SOME 20 YEARS ago Polecat creek in Randolph county went dry. A gold mine and smelting plant was operated on that stream for a number of years prior to 1914. Large quantities of fuel-wood were required. Farmers living up and down the creek stripped the land of timber to supply the gold mine. The slopes were denuded of their protective cover. Rain falling on the ground quickly ran off, taking with it the fertile topsoil.

FLOODS AND DROUGHTS came. When it rained the uncontrolled water hurried away as from off a roof, all the time taking still more soil and flooding lowlands. Precious little water soaked into the earth to maintain the moisture supply between rains.

SPRINGS DRIED UP.

WHEN RAIN was light the creekbed virtually went dry. No water flowed along its course. Heavy rains clogged the stream channel with silt. Fields were flooded still more easily. Farmers were forced to abandon cultivation of the creek bottoms. Floods ruined the crops when it rained and desert-like dryness parched them when it didn't.

MINING OPERATIONS ceased in 1914. Trees began to catch hold again on the hillsides. Vegetation began to trap water once more, allowing it to soak into the earth. Springs started flowing and releasing the water slowly.

EROSION STOPPED.

POLECAT CREEK once more flows regularly. Bottom lands are producing crops again.

The Farmer Cooperates

WHEN HE FULLY UNDERSTANDS the nature of the purpose of the Soil Erosion Service the wise farmer doesn't hesitate to take advantage of the erosion-control work being offered by an alert government.

IN THE FIRST PLACE the farmer is not required to spend a penny in cooperating to keep his topsoil intact. To begin with he and the Soil Erosion Service get down to facts (not theories), as such facts exist on the particular farm. The problems and practices on the farm are gone over in detail, and in an understanding way. Finally, a sensible, practical plan is evolved calculated best to combat erosion on that farm and at the same time prove otherwise of maximum benefit to the farmer.

SUCH A PLAN not only included setting up an adequate terracing system and control of gullies that may exist, but a definite land-use practice with the development of a greater use of erosion-preventing crops, a program very necessary in establishing permanent erosion control on the farm. Such a plan must meet the whole-hearted support of the farmer before the Soil Erosion Service can help to put it into effect.

WHILE THE GOVERNMENT supplies equipment and most of the power, and aids in a supervisory capacity, the farmer who is interested in making his holdings more valuable, jumps in with both feet and lends every cooperation at his disposal, giving labor, teams, and materials found on his farm. He realizes he has everything to gain--nothing to lose.

Object of Erosion-Control Plan

PRIMARILY the government erosion-control plan strikes not at reclamation of hopelessly wornout gullied land, but at the task of saving the remaining acres of good land,--those areas still retaining the topsoil or part of it. Much violently erosive land now in cultivation will be taken out of cultivation, where farmers can be convinced of the logic of the procedure. These areas will be restored to trees and other erosion-preventing plants which is the only possible means of controlling the washing of such areas.

HELP, Raney, Flory, Veazy!

O. E. Burnett's cow fell out of her pasture the other day---and broke her neck.

Grazing in a pasture that is almost "straight up and down" as the mountain folks say, the cow lost her footing, rolled off the slope, crashed through a fence and fell over a cliff.

--News item from Mitchell county.

The Farmers' Question Box

How long do you expect to help me with saving and improving my farm?

Five years.

What do you expect me to do during that time?

Continue as best you can practices agreed upon, maintain fences, terraces, checkdams and other structures we help you to build. Also to prevent forest fires.

Continued next month...

SOIL EROSION STAFF
(North Carolina Area)

Deep River Watershed Project

J. H. Stallings, regional director,
E. R. Raney, chief agricultural engineer,
W. D. Lee, chief soil expert
P. F. Keil, extension agent,
A. H. Veazy, agronomist,
W. E. Bowers, agronomist,
Chas. H. Flory, chief forester,
W. G. Kincannon, soil erosion specialist,
J. A. Muncey, asst. agricultural engineer,
W. A. Weld, asst. agricultural engineer,
R. C. Pleasants, asst. soil expert,
W. W. Stevens, asst. soil expert,
W. L. Freeman, surveyor,
James A. O'Neill, chief clerk.

Brown Creek Watershed Project

E. S. Vanatta, assistant regional director,
Donal Christie, asst. agricultural engineer,
R. W. Lipscombe, assistant soil expert,
H. M. Stott, extension agent,
A. A. Cone, assistant agronomist
W. B. Little, clerk.

U. S. Becoming Empire of Wornout Land

"UNRESTRAINED SOIL EROSION is rapidly building a new public domain in America, an empire of wornout land; land stripped of its rich surface soil down to poor subsoil and land gullied beyond the possibility of practical reclamation. The cost to the farmers and ranchers of the country amounts to \$400,000,000 annually, along with numerous other losses, such as damage to highways and railways and silting of rivers, reservoirs and irrigation and drainage ditches. This wastage is not merely continuing, it is speeding up with the removal of the absorptive topsoil. Over this exposed topsoil, which usually consists of impermeable clay, rain water flows away faster to increase the frequency and volume of floods. Farmers operating on slopes stripped of this vitally important surface layer have but the slimmest chance to make a satisfying living, whether prices are up or down."....

"PREVENTION OF EROSION is a business proposition that must be attended to now, not something that can be put off for future generations to solve."

--H. H. Bennett, Director
U. S. Soil Erosion Service